

DETAILED ACTION

Response to Amendment

1. Applicant's Amendment filed on 11/6/2009 has been entered with amended claims 1-2, 6-7 and 11-12. In this Office Action, claims 1-16 are pending.
2. Base on Applicant's argument on page 9, paragraph last, and Examiner withdrawn the rejection of claim 16 under 35 U.S.C. 101.
3. Applicant amendment overcomes rejection and Examiner withdrawn the rejection of claims under 35 U.S.C. 112, 2nd paragraph.

Compact Prosecution

4. Examiner called Applicant for compact prosecution to expedite and suggested to combine claim 5 with claim 1 and to cancel claim 5. Similarly to combine with claims 6, 11 and 16 (for details see Examiner Interview Summary).
5. Claims allowed are 1-4, 6-14, and 16 and they are renumbered as 1-14.

EXAMINER'S AMENDMENT

6. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Robert Kowert, Reg. No. 39,255 on 12/9/2009.

Claims: Replace amended on record claims 1, 5-6, 10-11 and 15-16 with the following:

1. (Currently amended) A computer-implemented method, comprising:

in response to a metadata server receiving a data access request from one of a plurality of clients, the metadata server:

determining a maximum expiration time indicated by a next scheduled time for exclusive access;

wherein the data access request is for data that is also accessible by one or more other clients of the plurality of clients each having a corresponding unexpired token, and wherein said time for exclusive access is a time when exclusive access to the data is required by a task;

generating an access token that grants the client access to data stored on one or more storage devices associated with the metadata server, wherein the access token comprises an expiration time, wherein the access token is

one of a plurality of access tokens each provided to a respective one of the plurality of clients; and

wherein said generating an access token comprises setting the expiration time of the access token to no later than the maximum expiration time indicated by the next scheduled time for exclusive access, such that the access token will be expired during the next scheduled time for exclusive access, thus preventing the client from using the access token to access the data during the next scheduled time for exclusive access, wherein at the next scheduled time for exclusive access the plurality of access tokens are expired without the metadata server transmitting a message to each client to expire its respective access tokens.

5. (Canceled)

6. (Currently amended) A system, comprising:

a processor and a memory storing program instructions executable by the processor to implement a metadata server, wherein the metadata server is configured to:

determine a maximum expiration time indicated by a next scheduled time for exclusive access in response to receiving a data access request from a client, wherein the client is one of a plurality of clients;

wherein the data access request is for data that is also accessible by one or more other clients of the plurality of clients each having a corresponding unexpired token, and wherein said time for exclusive access is a time when exclusive access to the data is required by a task;

generate an access token that grants the client access to data stored on one or more storage devices associated with the metadata server, wherein the access token comprises an expiration time, wherein the access token is one of a plurality of access tokens each provided to a respective one of the plurality of clients; and

set the expiration time of the access token to no later than the maximum expiration time such that the access token will be expired during the next scheduled time for exclusive access, thus preventing the client from using the access token to access the data during the next scheduled time for exclusive access, wherein at the next scheduled time for exclusive access the plurality of access tokens are expired without the metadata server transmitting a message to each client to expire its respective access tokens.

10. (Currently amended) The system of claim 9, wherein:

the access token is one of a plurality of access tokens; and

wherein the metadata server is further configured to:

provide one access token of the plurality of access tokens to a respective one of a plurality of clients; and

wherein at the next scheduled time for exclusive access the plurality of access tokens are expired without the metadata server transmitting a message to each client to expire its respective access tokens.

11. (Currently amended) A computer-readable, storage medium having stored program instructions that when executed by a computer implement:

a metadata server determining a maximum expiration time indicated by a next scheduled time for exclusive access;

generating an access token that grants one of a plurality of clients access to data stored on one or more storage devices associated with the metadata server, wherein the access token comprises an expiration time, wherein the data is also accessible by one or more other clients of the plurality of clients each having a corresponding unexpired token, wherein the access token is one of a plurality of access tokens each provided to a respective one of the plurality of clients, and wherein said time for exclusive access is a time when exclusive access to the data is required by a task; and

setting the expiration time of the access token to no later than the maximum expiration time such that the access token will be expired during the next scheduled time for exclusive access, thus preventing the client from using the access token to access the data during the next scheduled time for exclusive access, wherein at the next scheduled time for exclusive access the plurality of access tokens are expired without the metadata server transmitting a message to each client to expire its respective access tokens.

15. (Canceled)

16. (Currently amended) A system, comprising:
means for determining a default expiration time;

means for setting the expiration time of an access token to the earlier of either a maximum expiration time indicated by a next scheduled time for exclusive access or the default expiration time, wherein the access token grants one of a plurality of clients access to data stored on one or more storage devices associated with a metadata server, wherein the access token is one of a plurality of access tokens each provided to a respective one of the plurality of clients, and wherein the access token is set such that the access token will be expired during the next scheduled time for exclusive access, thus preventing the client from using the access token to access the data during the next scheduled time for exclusive access, wherein at the next scheduled time for exclusive access the plurality of access tokens are expired without transmitting a message to each client to expire its respective access tokens;

means for receiving a data I/O request associated with the access token, wherein the data I/O request is for data that is also accessible by one or more other clients of the plurality of clients each having a corresponding unexpired token, and wherein said time for exclusive access is a time when exclusive access to the data is required by a task;

means for comparing a current system time with the access token's expiration time; and

means for denying the data I/O request if the current system time is later than the access token's expiration time.

Reasons for allowance

7. The following is an examiner's statement of reasons for allowance:

- Prior art of record does not teach or suggest or render obvious the claimed limitations in combination with the specific added limitations as recited in independent claims 1, 6, 11 and 16. The prior art of record fails to teach or suggest in combination of claimed elements including "at the next scheduled time for exclusive access the plurality of access tokens are expired without the metadata server transmitting a message to each client to expire its respective access tokens." as recited in independent claims 1, 6, 11 and 16.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sathyanarayan Pannala whose telephone number is (571) 272-4115. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2164

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sathyanarayan Pannala/
Primary Examiner, Art Unit 2164

srp
December 15, 2009